What is claimed is:

1. A method for augmented reality guided instrument positioning, comprising the steps of:

establishing a viewpoint, from which a line of sight to a point on a target defines a path for an instrument to follow during a positioning of the instrument to the point on the target; and

aligning the instrument along the line of sight to the point on the target.

2. The method according to claim 1, further comprising the step of moving the instrument along the path towards the point on the target, subsequent to said aligning step.

3. The method according to claim 1, further comprising the step of rendering the target as a graphics object.

4. The method according to claim 3, wherein the graphics object comprises a marker that marks the point on the target.

5. The method according to claim 4, wherein the marker has a circular shape, and is centered on the point on the target.

6. The method according to claim 5, wherein the circular shape is a ring.

7. The method according to claim 1, further comprising the step of marking the path with a plurality of graphical markers.

8. The method according to claim 7, wherein the plurality of graphical markers comprises at least one ring centered on the path.

9. The method according to claim 8, wherein the at least one ring comprises at least two rings having different diameters.

10. The method according to claim 1, wherein said aligning step comprises the steps of:

positioning a tip of the instrument on the path, at an entry point on a surface of a physical object corresponding to the target; and

rotating the instrument around the tip on the entry point until the instrument is aligned with the line of sight toward the point on the target.

11. The method according to claim 10, further comprising the step of marking the entry point on the physical object.

12. The method according to claim 11, wherein said entry point is marked by a graphical object.

13. A method for augmented reality guided instrument positioning, comprising the steps of:

rendering at least one graphics path guide for indicating a path for an instrument to follow to a target;

identifying at least one axis marker on the instrument that marks an axis of the instrument, the axis disposed from a front portion to a back portion of the instrument, the front portion corresponding to the point on the target; and

aligning the at least one axis marker with respect to the at least one graphics guide to align the instrument to the path.

14. The method according to claim 13, further comprising the step of constructing and rendering the at least one axis marker as graphical marker.

15. The method according to claim 14, further comprising the step of tracking the instrument to register the graphical marker with respect to the axis of the instrument.

16. The method according to claim 13, further comprising the step of selecting an existing feature of the instrument to be the at least one axis marker.

17. The method according to claim 13, further comprising the step of designing the instrument to include the at least one axis marker.

18. The method according to claim 13, further comprising the step of adding the at least one axis marker to a structure of the instrument.

19. The method according to claim 13, wherein the at least one axis marker is an elongated member.

20. The method according to claim 13, wherein the at least one axis marker has a circular shape, and is centered on the axis of the instrument.

21. The method according to claim 13, wherein the at least one axis marker is a cross comprised of an intersection of at least two lines, the intersection being centered on the axis of the instrument.

22. The method according to claim 13, wherein the at least one axis marker comprises at least two axis markers for controlling alignment of the instrument along a line of sight.

23. A method for virtual reality guided instrument positioning, comprising the steps of:

defining a point on an actual target and an actual path to reach the point on the actual target;

tracking a pose of an actual instrument with respect to a pose of the actual target;

rendering a graphical representation of the actual instrument and the actual target point to obtain a virtual instrument and a virtual target point, respectively, the graphical representation being rendered with respect to a virtual viewpoint from which a virtual line of sight to the virtual target point

coincides with a virtual path for the virtual instrument to follow during a positioning of the actual instrument to the point on the actual target, the virtual path corresponding to the actual path;

aligning the virtual instrument along the virtual line of sight to the virtual target point to align the actual instrument along the actual path.

24. The method according to claim 23, further comprising the step of moving the actual instrument along the actual path towards the point on the actual target, subsequent to said aligning step.

25. The method of claim 23, wherein the virtual target point has a circular shape.

26. The method of claim 25, wherein the circular shape is a ring.

27. The method of claim 23, wherein the virtual instrument comprises a 3D structure for line of sight alignment.

28. The method of claim 27, wherein the 3D structure comprises a plurality of markers centered on

and distributed along an axis of the virtual instrument.

29. The method of claim 28, wherein said plurality of markers comprise at least two rings, centered on an axis of the virtual instrument.

30. The method of claim 29, wherein the at least two rings have different diameters.

31. The method of claim 23, further comprising the step of choosing an orientation of the graphical representation around the virtual line of sight according to a pose of a user with respect to the actual target.

32. The method of claim 31, further comprising the step of determining the orientation such that east, west, north, and south correspond to right, left, forward, and backward, respectively, for the pose of the user in which the user faces the actual target, said determining step based on a selection.

33. The method of claim 31, wherein the orientation is dynamically adjusted according to a change of the pose of the user.

34. The method of claim 32, wherein the selection is dynamically adjusted with respect to the pose of the user.

35. The method of claim 23, further comprising the step of rendering graphical information about a distance between the actual instrument and the point on the actual target.

36. The method of claim 35, wherein the graphical information about the distance is overlaid onto the graphical representation.

37. The method of claim 36, wherein the virtual target point and the virtual instrument are designed such that information corresponding to the distance can be directly observed from an alignment of the virtual target point and the virtual instrument.

38. The method of claim 35, wherein said rendering step is performed according to a virtual camera with a wide angle lens.

39. The method of claim 36, wherein the virtual target point and the virtual instrument are each

comprised of at least one ring centered on the target point respectively on the axis of the instrument, and a diameter of the at least one ring is dimensioned to achieve a pre-defined configuration when the actual instrument reaches the actual target.

40. The method of claim 23, wherein the graphical representation from the virtual viewpoint is combined with another graphical representation from another virtual viewpoint looking at the virtual path from a side thereof.

41. The method of claim 23, wherein said graphical representation from the virtual viewpoint is combined with an augmented reality view.